

12. Coal dust is very toxic to the lungs and causes
- (A) arthritis
 - (B) cancer
 - (C) premature births
 - (D) black lung disease
 - (E) bad breath
13. Before fossil fuels became commonly used, what was popularly used for lamp oils and candles?
- (A) Lye
 - (B) Bacon grease
 - (C) Whale oil
 - (D) Seal fat
 - (E) Natural gas
14. A sedimentary rock containing solid organic matter is called
- (A) tephra
 - (B) kerogen
 - (C) granite
 - (D) igneous rock
 - (E) gneiss
15. Prior to mine reclamation laws, mine drainage and acidic runoff from coal tailings were toxic by-products of
- (A) tillage
 - (B) urban development
 - (C) underground mining
 - (D) strip mining
 - (E) industrial processing
16. A hotly debated area with large oil reserves is
- (A) NAWR
 - (B) USDA
 - (C) western Europe
 - (D) WARN
 - (E) ANWR
17. Coal contaminants must be removed by washing or flue-gas scrubbing or they will be released during burning to form sulfur dioxide (SO_2), sulfate (SO_4), CO_2 , NO_x , and
- (A) $\text{C}_8\text{H}_8\text{O}_3$
 - (B) particulates
 - (C) KCl
 - (D) CH_3NH_2
 - (E) Ga_2O_3
18. When coal is used to produce electricity, what fraction of the original energy is lost in thermal conversion at the plant?
- (A) $\frac{1}{4}$
 - (B) $\frac{1}{3}$
 - (C) $\frac{1}{2}$
 - (D) $\frac{2}{3}$
 - (E) $\frac{3}{4}$

> Answers and Explanations

1. E
2. C—Sulfur is a big contaminant of coal when burned, and combines with oxygen into atmospheric pollutants.
3. D
4. E
5. B
6. C—Energy reserves must be proven or they have little value in energy planning.
7. E
8. A—Fossil fuel burning releases many different chemicals into the atmosphere.
9. A—Transportation and other U.S. energy demands far exceed cooking needs.
10. A—The first North American oil well was drilled over 150 years ago.
11. B—Natural gas is a clean-burning, high-efficiency fuel.